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09/811,526	03/20/2001	Nagahisa Chikazawa	010363	9425

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EXAMINER

SIANGCHIN, KEVIN

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/811,526	Applicant(s) CHIKAZAWA ET AL.	
	Examiner Kevin Siangchin	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Drawings

Response to Drawing Corrections

1. New and corrected drawings were received on July 07, 2004. These drawings are acceptable.

Specification

Response to Amendments to the Specification

2. The amendments to the Specification, filed July 07, 2004, have been acknowledged. These amendments overcome all objections to the Specification posed in the previous Office Action. All objections to the Specification have, therefore, been withdrawn.

Claims

Response to Amendments to the Claims

3. The amendments to the Claims filed July 07, 2004 have been made of record. Claims 1, 3, 4, 7, 9 and 13-15 have been amended accordingly.
4. As a consequence of these amendments, all 35 U.S.C. § 112(2) rejections have been overcome. All such rejections posed in the previous Office Action are thus withdrawn. The amended Claims, however, stand rejected under 35 U.S.C. § 103(a). This will be discussed in greater detail below.

Response to Arguments and Remarks

5. The Applicant's arguments, filed July 07, 2004 (hereinafter, "Applicant's Remarks"), have been fully considered, but they are not persuasive.

6. In the previous Office Action, the Examiner rejected Claims 1-5, 7-11, 13, and 14 under 35 U.S.C. § 103(a) in view of the teachings of [Bradney01] (*U.S. Patent 6,208,264*) and [Setlak99] (*U.S. Patent 5,940,526*). The Applicant properly characterizes the devices of [Bradney01] and [Setlak99] on pages 10-11 of the Applicant's Remarks. Briefly, it was shown in the previous Office Action that the device of [Bradney01] shares several of the structural components of the fingerprint recognizing apparatus and electrical unit of Claims 1 and 7, respectively – in particular, the sensor section, the cover, and the contact section (cf. page 3, paragraph 8 and page 6, paragraph 15 of the previous Office Action). The device of [Bradney01], however, lacked the connection to ground, as set forth in both Claims 1 and 7. [Setlak99], on the other hand, discloses a fingerprint sensor that possesses the requisite connection to ground (cf. page 4, paragraph 9 and page 6, paragraph 13¹ of the previous Office Action). On page 11 of the Applicant's Remarks, the Applicant has accurately noted the differences in the types of sensors employed by [Bradney01] and [Setlak99] – that is, [Bradney01] uses an optical sensor, whereas, [Setlak99] uses an electric field sensor. The Examiner concurs with this assessment of [Bradney01] and [Setlak99]. The fingerprint sensors used in each are indeed different. This difference, however, does not preclude the combination of [Bradney01] and [Setlak99] that was posited in the previous Office Action.

7. In the previous Office Action (paragraphs 9-10 on page 4 and paragraph 13-14 on page 7 of the previous Office Action), it was argued that the fingerprint sensor of [Bradney01] could be interchanged with the fingerprint sensor of [Setlak99]. It was noted that, in terms of dimension and function, the two sensors were similar. The Examiner further asserted that the two sensors were "electrically similar". The Applicant takes particular issue with this assertion (see footnote on page 13 of the Applicant's Remarks). Upon further consideration, it is the Examiner's opinion that the original assertion of "electrical similarity" was made in error. The two sensors are clearly different electrically. Though these differences are not trivial, they would not deter one from using the sensor of [Setlak99] in

¹ The reader may notice that the paragraph numbering is improper on page 6 of the previous Office Action. Paragraphs of the previous Office Action will be referred to as they appear, regardless of their order.

lieu of the sensing mechanism of [Bradney01] as a means for “capturing” an operator’s fingerprint, particularly given the advantages of [Setlak99]. Such a modification could, for example, comprise wholly replacing the optically-based components of [Bradney01] for the sensor and supporting components of [Setlak99]. The details of such a modification would be apparent to one of ordinary skill in the art. Other ways for achieving this substitution of sensors may be possible, as would be clear to one of ordinary skill in the art.

8. Taking into account the totality of [Bradney01] (note, for example, [Bradney01] Figs. 1 and 6-7), it is clear that the overall functionality of the disclosed verification system would not be perturbed by utilizing a different type of fingerprint sensor. Indeed, the *optical* acquisition of the fingerprint is not a critical aspect of that system. What is critical to the rest of the system is simply the acquisition of the fingerprint. Therefore, the teachings of [Bradney01] certainly do not teach against the combination of [Bradney01] and [Setlak99]. The previous Office Action, however, did not rely on the totality of [Bradney01], nor the nature of the disclosed fingerprint acquisition. Rather, [Bradney01] was relied upon primarily for its flip-top cover housing and contact section illustrated in [Bradney01] Figs. 4a-5a. These were shown, in the previous Office Action, to be substantively similar to the Applicant’s claimed casing, contact section, and cover.

9. As stated in the previous Office Action (cf. paragraph 10 on page 4 and paragraph 14 on page 7), one would have been motivated to replace the optical fingerprint sensor of [Bradney01] with the electrical field sensor of [Setlak99] because of the various advantages of the latter. These include (cf. [Setlak99], column 6, lines 50-55) power conservation and protection against electrostatic discharge (ESD). The Applicant, however, argues that [Setlak99] does not show ESD being a problem for optical sensors and, therefore, the advantages of [Setlak99] do not provide a proper motivation to combine (Applicant’s Remarks, page 13, paragraph² 2). Because the previous Office Action proposed replacing the optical sensing mechanism of [Bradney01] with the sensor of [Setlak99], these arguments are clearly moot. Nevertheless, for the purposes of clarity, they will be addressed.

10. As acknowledged by the Applicant (Applicant’s Remarks, page 13, paragraph 1, last sentence), [Setlak99] explains that some conventional sensors are susceptible to damage from ESD. Conventional optical fingerprint

² When referring to paragraphs in the cited references, the convention followed here is that the paragraph number is assigned to paragraphs of a given column (if applicable) or section, sequentially, beginning with the first full paragraph. Paragraphs that carry over to other columns will be referred to as the last paragraph of the column in which they began.

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sensors often employ charge-coupled devices (CCD). CCDs, like most semiconductor devices, are susceptible to damage due to ESD. CCDs are particularly vulnerable to excess charge, even when that charge does not damage the device. The proper distribution of charge in a CCD is essential to its operation. Excess charge can result in spurious distributions of charge in the CCD, resulting in noise at the output. ESD protection in these types of optical sensors is, therefore, especially imperative.

11. Although the optical sensor of [Bradney01] does not use CCD technology, it would benefit from some form of ESD protection. ESD protection at the point of contact would ensure that solid-state components in proximity to the finger are protected against any potential damage due to ESD. ESD protection and, in particular, ESD protection accomplished via proper ground connections are treated in the newly and previously cited Prior Art. For the reasons given above, the Examiner deems the combination of [Bradney01] and [Setlak99] proper. Furthermore, the Applicant will notice, in Figs. 4a-5a of [Bradney01], that the contact section 58 is located on the base of the housing, which is clearly a separate piece from the cover 86. The base and cover are attached by the depicted hinge. Also, because the contact section is recessed, no direct contact is made between it and the cover. In this manner, [Bradney01] addresses the added limitations of Claims 1 and 7. Taking this into account and the discussion above, the rejections of Claims 1 and 7 under 35 U.S.C. § 103(a), in view of [Bradney01] and [Setlak99], are maintained. Analogous arguments apply to the Applicant's remarks regarding the combination of [Holeman02] (*U.S. Patent 6,337,918*) and [Setlak99], and the 35 U.S.C. § 103(a) rejection of Claim 15.

12. The following is in regard to the Applicant's remarks on page 14, paragraph 2 of the Applicant's Remarks. The Applicant asserts: "[A]pplicants find no teaching or suggestion in Setlak et al. [[Setlak99]] of a recess in an apparatus body or unit casing or a curvature of cover 53' as claimed". The Examiner did not rely upon [Setlak99], in the previous Office Action, to teach such a recess or such a curvature. Rather, [Bradney01] was shown to teach these aspects of the Applicant's claimed invention. Please refer to paragraphs 12-14 on page 5 of the previous Office Action. The Applicant does not dispute the teachings of [Bradney01] relating to these elements, but instead insists that [Bradney01] and [Setlak99] are not combinable. This assertion was rebutted above. The 35 U.S.C. § 103(a) rejections of Claims 3-5, 9-11, and 13, are, therefore, maintained.

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13. The remaining arguments of the Applicant are based on the assertion that [Bradney01] and [Setlak99] are not combinable. This assertion was rebutted above. The Applicant's remaining arguments are, therefore, moot, in view of that rebuttal.

Rejections Under 35 U.S.C. § 103(a)

14. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-5, 7-11, and 13-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over [Bradney01], in view of [Setlak99].

16. *The following is in regard to Claim 1 and 7.* As discussed in the previous Office Action, [Bradney01] discloses a fingerprint recognizing apparatus comprising:

- (1.a.) A sensor section mounted on the apparatus body for detecting a fingerprint of an operator.
- (1.b.) A cover movable between an open position and a closed position for protecting the sensor section in such a manner that an operator's finger can access the sensor section when the cover is in the open position.
- (1.c.) A contact section arranged on the apparatus body at a position where the operator's finger can easily come into contact therewith during an operator's action to open the cover.

[Bradney01], however, does not show:

- (1.d.) The contact section being electrically connected to the ground of the apparatus body.

Please refer to paragraph 8 on page 3 of the previous Office Action.

17. [Setlak99], on the other hand, discloses a fingerprint sensor comprising a contact section electrically connected to the ground of the apparatus body. Please refer to paragraph 9 on page 4 of the previous Office Action.

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It was argued in the previous Office Action that the electrical field sensor of [Setlak99] could replace the optical sensor of [Bradney01]. As argued in the previous Office Action and discussed further above, one would have been motivated to perform such a replacement because of the advantages of the [Setlak99] sensor over that of [Bradney01]. Please refer to paragraph 10 on page 4 of the previous Office Action, as well as the discussion in the previous section of this document. The resulting apparatus would exhibit elements (1.a.)-(1.c.) above, wherein (1.d.) the contact section electrically connected to the ground of the apparatus body.

18. In regard to the new limitations of Claim 1, notice in Figs. 4a-5a of [Bradney01] that the contact section 58 is located on the base of the housing, which is clearly a separate piece from the cover 86. The base and cover are attached by the depicted hinge. Also, because the contact section is recessed, no direct contact is made between it and the cover. In this manner, "the contact section is a separate element from the cover".

19. The rejection of Claim 7 follows similarly.

20. *The following is in regard to Claim 2 and 8.* As shown in the previous Office Action, the flip-top cover housing of [Bradney01] (cf. [Bradney01] Figs. 4a-5a) was such that:

- (2.) The cover has one free end and another base end and is moved between the open and closed positions by means of a hinge provided at the base end of the cover

Please refer to paragraph 11 on page 4, and paragraph 15 on page 7 of the previous Office Action.

21. *The following is in regard to Claim 3 and 9.* Amended Claim 3 merely combines the limitations of original Claim 3 with the elements (1.a.)-(1.d.) and (2.) above. Elements (1.a.)-(1.d.) and (2.) were treated previously. It was shown in the previous Office Action that the flip-top cover housing of [Bradney01] (cf. [Bradney01] Figs. 4a-5a) was such that:

- (3.) The contact section is arranged in a recess which is provided on the apparatus body at a position near to the free end of the cover when it is in the closed position.

Please refer to paragraph 3 on page 5 of the previous Office Action.

22. The rejection of Claim 9 follows similarly. Please refer to paragraph 16 on page 9 of the previous Office Action.

23. *The following is in regard to Claim 4 and 10.* Amended Claim 4 merely combines the limitations of original Claim 4 with the elements (1.a.)-(1.d.) and (2.) above. Elements (1.a.)-(1.d.) and (2.) were treated previously. It was shown in the previous Office Action that the flip-top cover housing of [Bradney01] (cf. [Bradney01] Figs. 4a-5a) was such that:

- (4.) The free end of the cover is gently curved in such a manner that a central portion thereof is protruded outwardly more than respective side portions thereof.

Please refer to paragraph 13 on page 5, and paragraph 17 on page 8 of the previous Office Action.

24. *The following is in regard to Claim 5 and 11.* As shown in the previous Office Action, the flip-top cover housing of [Bradney01] (cf. [Bradney01] Figs. 4a-5a) was such that:

- (5.) The recess and the contact section are also curved along with a curvature profile of the recess.

Please refer to paragraph 14 on page 5, and paragraph 18 on page 8 of the previous Office Action.

25. *The following is in regard to Claim 13.* As discussed in the previous Office Action, [Bradney01] discloses an electrical unit including a fingerprint recognizing apparatus comprising:

- (13.a.) A unit casing.
- (13.b.) The fingerprint recognizing apparatus mounted on the unit casing for detecting a fingerprint of an operator, the apparatus comprising:
 - 1. A sensor section.
 - 2. A cover movable between an open position and a closed position for protecting the sensor section.
 - 3. A contact section arranged at a position on the unit casing where an operator's finger can easily come into contact therewith when the cover is opened by the operator.

Please refer to paragraph 15 on page 6 of the previous Office Action. [Bradney01], however, does not show:

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(13.b.) 4. The contact section being electrically connected to the ground of the apparatus body.

(13.c.) A ground contact plate which is rigidly connected to the unit casing, the contact section is formed as a part of the ground plate.

26. [Setlak99], on the other hand, discloses a fingerprint sensor comprising a contact section electrically connected to the ground of the apparatus body. Please refer to paragraph 9 on page 4 of the previous Office Action. [Setlak99] It was argued in the previous Office Action that the electrical field sensor of [Setlak99] could replace the optical sensor of [Bradney01]. As argued in the previous Office Action and discussed further above, one would have been motivated to perform such a replacement because of the advantages of the [Setlak99] sensor over that of [Bradney01]. Please refer to paragraph 10 on page 4 of the previous Office Action, as well as the discussion in the previous section of this document. The resulting apparatus would exhibit elements (1.a.)-(1.c.) above, wherein:

(13.b.) 4. The contact section being electrically connected to the ground of the apparatus body.

27. While [Setlak99] does not explicitly show the attachment of the contact section to a ground contact plate rigidly connected to the unit casing (element (13.c.) above), the usage of such plates for the purposes of grounding circuit elements is standard practice in the design and construction of electrical devices. The Examiner takes Official Notice that, at the time of the applicant's claimed invention, it was well-known, in the field of electrical device design, to ground circuit elements or electrical devices by attaching them to a ground plate attached to the enclosure housing the electrical devices or the circuit composed of said elements. An example is the chassis ground, often taking the form of a metallic plate, attached to housing (chassis) of a computer. Ground plates, such as these, provide a reference (zero) voltage against which all voltages in the system are established and measured. In the case of "self-contained" devices (i.e. those that may not have a direct connection to an *earth* ground), such as laptops or the fingerprint recognizing apparatus discussed here, utilizing a ground plate advantageously provides a means to ground electrical components such as the fingerprint sensor of [Setlak99] (necessary for their proper function) without a direct electrical connection to the earth. Clearly, this promotes the portability of the device.

28. Given the demonstrated usage of grounding plates in the industry, and the fact that portable, self-contained devices require such a means for grounding, it would have been obvious to one of ordinary skill in the art, at the time of the applicant's claimed invention, to introduce a grounding plate into the electrical unit obtained by combining the teachings of [Bradney01] and [Setlak99], by attaching it rigidly to the unit casing of the electrical unit

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(in order to limit the potential of dislodging it), and to use it to ground the contact section of the fingerprint sensor.

In doing so one would obtain an electrical unit that conforms to the limitations of claim 13.

12. *The following is in regard to Claim 14.* The Examiner takes Official Notice that, at the time of the applicant's claimed invention, the usage of mounting plates to mount electronic devices to casings or enclosures via a screw was well known. Mounting plates have the advantage that the pressure of the screw is distributed over the area encompassed by the plate. Among other things, this stabilizes the mounted component, allows the mounted component to be flush with the mounting surface of the casing (e.g. the top face of the electrical unit shown in [Bradney01] Fig. 4a. coplanar to elliptical curve indicated by reference number 62), and provides more uniform pressure to the surface of the mounted component, thereby reducing potential damage (e.g. cracking) of the component when pressure is applied during the mounting process.

29. It would be straightforward for one of ordinary skill in the art to attach the fingerprint recognition apparatus to the unit casing by using a mounting plate secured by a screw. Given the ease with which this can be done and the advantage of using such plates, it would have been obvious to one of ordinary skill in the art, at the time of the applicant's claimed invention, to secure the fingerprint recognition apparatus to the unit casing using mounting plate fixed in place by means of screws. The resulting electrical unit would satisfy all limitations of Claim 14.

30. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over [Bradney01], in view of [Setlak99], and in further view of [Gailey02] (*U.S. Patent 6,382,416*).

31. *The following is in regard to Claim 6 and 12.* While the "lip" 50 at the end of cover 86 depicted in Fig. 4a of [Bradney01] can presumably serve a locking function, [Bradney01] does not explicitly state its purposes as such, nor does [Bradney01] Fig. 4a depict a secondary engaging member. [Bradney01] and [Setlak99], therefore, do not show:

- (6.a.) A locking means for locking the cover in its closed position, the locking means comprising:

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1. A first engaging member provided at the free end of the cover.
 2. A second engaging member provided at a position corresponding to the first engaging member so that the first and second engaging member are mutually engaged with each other when the cover is in its closed position.
32. [Gainey02] discloses a fingerprint recognition apparatus, comprising:
- (6.a.) A locking means for locking the cover in its closed position, the locking means comprising:
 1. A first engaging member provided at the free end of the cover.
 2. A second engaging member provided at a position corresponding to the first engaging member so that the first and second engaging member are mutually engaged with each other when the cover is in its closed position.

Please refer to paragraphs 25-26 on pages 10-11 of the previous Office Action.

33. Given the structural similarities of the fingerprint recognition apparatus of [Bradney01] and that of [Gainey02], it would be a simple exercise for one of ordinary skill in the art to incorporate the locking means taught by [Gainey02] into the fingerprint recognition apparatus of [Bradney01]. Clearly, the addition of the locking means would secure the cover in the closed position more firmly, thereby protecting the delicate sensor from inadvertent exposures to potentially harmful entities or forces. Given the simplicity of such a modification and motivated to provide a more robust fingerprint recognition apparatus, it would have been obvious to one of ordinary skill in the art, at the time of the applicant's claimed invention, to incorporate the locking means taught by [Gainey02] into the fingerprint recognition apparatus, obtained by the combination of [Bradney01] and [Setlak99].

34. The rejection of Claim 12 follows similarly.

35. Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over [Holehan02], in view of [Setlak99].

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36. *The following is in regard to Claim 15.* As discussed in the previous Office Action, [Holehan02] discloses a an information processing unit including a fingerprint recognizing apparatus. The information processing unit comprises:

(15.a.) A unit body comprising:

1. A data input section and a data processing section for processing data input from the data input section.
2. A display section for displaying letters and images.

(15b:) The fingerprint recognizing apparatus mounted on the unit casing for detecting a fingerprint of an operator, the fingerprint recognizing apparatus comprising:

1. A sensor section.
2. A cover movable between an open position and a closed position for protecting the sensor section.
3. A contact section arranged at a position on the unit casing where an operator's finger can easily come into contact therewith when the cover is opened by the operator.

Please refer to paragraph 32 on page 15 of the previous Office Action. [Holehan02], however, does not show:

(15.b.) 4. The contact section electrically connected to the ground of the unit casing.

As discussed previously, [Setlak99] discloses a fingerprint sensor comprising this element. It was argued in the previous Office Action (cf. paragraph 34 on page 14 of the previous Office Action) that, given the advantages of this sensor over other sensors, it would have been obvious to one of ordinary skill in the art, at the time of the Applicant's claimed invention, to replace the sensor of [Holehan02] with that of [Setlak99]. The resulting information processing unit would include elements (15.a.)-(15.b.) above, wherein:

(15.b.) 4. The contact section electrically connected to the ground of the unit casing.

Furthermore, notice in [Holehan02] Fig. 1 that the top swiveling portion of the laptop (i.e. the section containing the screen 14) is clearly a separate element from the contact section 16. As discussed in the previous Office Action, this portion of the laptop serves as the cover in [Holehan02]. Therefore, in [Holehan02], "the contact section is a separate element from the cover".

Citation of Relevant Prior Art

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
38. [Thomas00], [Chiu04], [Holberg01], and [Marsh91] all relate to ESD protection in semiconductor devices. In each, ESD protection is effected through some connection of a contact surface to ground. [Thomas00] and [Chiu04] particularly relate to fingerprint sensors.

- [Thomas00] D. Thomas et al. *U.S. Patent 6,091,082: Electrostatic Discharge Protection For Integrated Circuit Sensor Passivation*. Filing Date: February 1998.
- [Chiu04] A. Chiu. *U.S. Patent 6,787,388: Surface Mount Package With Integral Electro-Static Charge Dissipating Ring Using Lead Frame As ESD Device*. Filing Date: September 2000.
- [Holberg01] D. Holberg et al. *U.S. Patent 6,285,536: High Voltage Input Pad System*. Filing Date: November 1999.
- [Marsh91] H. Marsh. *U.S. Patent 5,085,743: Antistatic, Low Particulate Shipping Container For Electronic Components*. Filing Date: September 1990.

Conclusion

39. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
40. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period,

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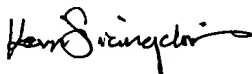
then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Siangchin whose telephone number is (703)305-7569. The examiner can normally be reached on 9:00am - 5:30pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Siangchin



Examiner
Art Unit 2623

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600